Perceptions of family cohesion and achievement orientation among runaway adolescents: Understanding school performance

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ABSTRACT

This paper examined the relationship between the perceptions of family cohesion, and achievement orientation, as related to grade point average (gpa) and school problems. The sample included 242 substance abusing runaway adolescents recruited from a residential crisis shelter. The relationships between parents' annual income, education level and adolescent's gender to the adolescent's gpa and school problems were also explored. Findings indicated that higher levels of perceived family cohesion and achievement orientation predicted fewer school problems, but not gpa. Parents' income and education levels were not significant predictors of gpa or school problems. However, gender predicted school problems. Specifically, higher family cohesion was associated with fewer school problems among females and higher achievement orientation predicted fewer school problems among males. These findings suggest that family characteristics are important factors to consider when understanding school problems among substance abusing runaway youth.

INTRODUCTION

Academic success can be important for the future of adolescents. Failing to graduate from high school can set youth down a path of low success and set-backs. Difficulties encountered by those lacking a high school diploma include low wages (Jencks et al., 1979), lower job satisfaction, and higher levels of unemployment (McCaul, Donaldson, Coladarci, & Davis, 1992). Therefore, it may be crucial for students to follow through in completing high school. Assuming that success in school is important to one's future, it may also be a protective factor in the life of at-risk youth.

The students who are labeled at-risk face challenges that most students do not encounter. The meta-analysis by Engberg and Morral (2006) discussed the relationship between substance use and school performance. Longitudinal studies discovered that early adolescent drug users were at-risk for poor school achievement including reduced levels of high school graduation and lower rates of attendance and grades. Engberg and Morral (2006) also found that the reduced levels of substance use predicted higher levels of school attendance, and increased grades and graduation rates. Thus, the students who are considered at-risk tend to have many hurdles to overcome that can hinder academic achievement.

Other researchers identify many problem behaviors among at-risk groups, especially runaway and homeless youth (Slesnick & Prestopnik, 2005). Many of these students have issues that may be primary factors in their homelessness or runaway status. These adolescents have high rates of childhood physical and sexual abuse, depression, teen pregnancy, and prostitution (Zimet et al., 1995; Johnson, Aschkenasy, Herbers, & Gillenwater, 1996). In Seattle, Morgan (as cited in MacKay & Hughes, 1994, p. 3) found

that 85% of homeless adolescents surveyed from emergency shelters and drop in services had learning disabilities or attention deficit problems. In addition, MacKay and Hughes (1994) discussed common barriers to school that runaway and homeless youth have to overcome. These barriers include absenteeism because of a lack of stability, school personnel that are unfamiliar with the situations of homeless and runaway youth, and lack of transportation to and from school. With such serious risk behaviors and barriers to education, more information is needed which might be used to increase the probability of success among these youth. No study was found that specifically examined predictors of school performance among runaway youth.

In trying to improve school performance among at-risk groups, many studies tend to focus on individual interventions and what the person can do to improve his or her own shortcomings - such as decreasing the effects of ADHD and behavioral problems. A study by Barry, Lyman, and Klinger (2002) examined the impact that the severity of students' ADHD symptoms had on students' school performance. There was a direct relation found between the two variables and the authors suggested that the children might undergo behavioral interventions such as token reinforcement programs and self-management interventions. Though primarily focused on individual intervention, the authors also suggested targeted school interventions like remedial instruction and study skills.

There is a concentration of research on school interventions in regards to how classroom management and school programs can affect the adolescents' school performance. A discussion by Jimerson et al. (2006) on promoting academic competence of students mentions different approaches of interventions to increase school

performance. For example, suggestions included: a) comprehensive school programs that focus on proactive instruction and school-wide support by administration and faculty, b) summer school and after school programs that implement additional time and exposure to academics, and c) multi-age classrooms that allow students to work at their own pace and work with students at the same level. While these programs may be successful in helping some students, there are still other aspects in adolescents' lives that may lead to at-risk behaviors and academic failure.

According to the ecological systems theory by Urie Bronfenbrenner (1977), an individual is never isolated. Individuals are affected by interactions in the home, school, and at work. These interactions between multiple people are not limited to the settings and environments immediately at hand, but also include other relationships within each system's past and current experiences. These interactions reverberate across all systems and these relationships can be explored to understand behavior. In this light, it is reasonable to investigate the influences of all related systems to the youth. Focus on one system in isolation of other systems does not provide an accurate estimation of the risks and strengths of students and their families. Research has covered prominent systems such as the individual and school, but until recently has failed to look at the family. This system relationship is central to many adolescents as most live with a family. In many studies, the positive family characteristics can serve as strong protective factors for children. Two particular family characteristics that have an impact on at-risk students' academic performance are family cohesion and family achievement orientation.

Family Cohesion

Considered a protective factor (Springer, Wright & McCall, 2003), family cohesion, or the adolescent's perception of support and care within the family environment, differentiates success from failure in school. A discussion by Masselam and Marcus (1990), examined the differences between two groups of students, one that tended to succeed in school and the other which was more likely to fall behind. The study found that the unique factor that differentiated the two groups was the students' perceptions of the levels of positive family communication and interactions (which in this study represents family cohesion). This finding is significant in understanding the connection between perceived family cohesion and adolescents' academic performance.

Family functioning and academic performance also affects the students' personal adjustment and self concept. King et al. (2005) found that family-functioning in terms of communication, problem solving, responsiveness, and involvement was directly related to the child's psychosocial adjustment as measured by the child's attention, and emotional and behavioral regulation. Arbona (as cited in King et al., 2005, p. 335) discussed that this is significant since the factors associated with the adolescents' adjustment were found to influence their academic achievement.

King and colleagues (2005) asserted that well-adjusted students are more comfortable exploring new environments. If a student is provided with a stable family base then he or she will be more emotionally secure and close with the caretakers. This relationship then gives the youth the confidence and comfort to explore new realms in academics or work that they would not feel at ease to do otherwise. This parallels attachment theory between parents and very young children.

Ainsworth and Bowlby's research (1991) on the importance of parental care and support in a young child's security relates to King and colleagues' (2005) topic of student adjustment and school performance. Ainsworth and Bowlby's research revealed that infants felt secure only when they had parents to care and support them. Infants who became curious with the world and explored new environments were more confident to learn and explore if they had a secure base to return to in times of insecurity and uncertainty. Therefore, having a secure base with a parent to return to in times of uneasiness allowed the infant to be more confident and comfortable in exploring new situations. In regards to adolescents, King et al.'s study found that the youth were more likely to investigate new situations in life if they had a secure base of parental support as Ainsworth and Bowlby discovered. While family cohesion may not assess attachment as traditionally conceptualized by Ainsworth and Bowlby, it provides an estimate of the youths' and parents' perceptions of family level support and closeness, similar to attachment.

In multiple studies, researchers successfully intervened with families to increase family cohesion. According to Springer, Wright, and McCall (1997), in home sessions with a facilitator were associated with an increase in family members' positive perceptions of cohesion. A similar report by Fischer (2003) found that a family based support program significantly increased the parental assessment of cohesion pre to post intervention. In sum, these studies show interventions can increase a families' perception of cohesion, which then might positively affect the students' school performance. The current study will examine adolescents' perceptions of family cohesion and how this

predicts the adolescents' grade point average and school problems, which may have implications for intervention efforts.

Achievement Orientation

Research also supports the relationship between achievement orientation perceptions within the family and the school performance of the youth. Achievement orientation includes a multitude of factors including parental involvement in the youth's school, parental levels of education, and parental employment status. A study by Unger, McLeod, Brown, and Tressell (2000) found that less support from the family was associated with decreased levels of desire or motivation for the parents to be involved in the child's school related activities. This finding was then followed by the discussion that the student's grades and personal concept were negatively affected by the lack of parental support.

Unger et al (2000) revealed that parent's school involvement was also directly related to the child's grade point average. This finding is supported by Fehrmann, Keith, and Reimer's research (1987) where parental achievement orientation was measured by the students' perceptions of the general parental involvement in students' academic and social lives. The youth's perception of the level of parental support of academics affected the amount of time the adolescent spent on homework. The time spent on homework was then reflected through their grade point average.

A study by Bowen and Bowen (1998) found that students who come from a more supportive home academic culture were likely to assign more meaning to academics than those who come from less supportive environments. Home academic culture was defined as the emphasis that parents put onto school in terms of discussing school classes,

activities, homework, attendance, and future plans. These conversations with the adolescents indicate the importance that the parents place on education. The students, whose parents saw academics as significant, tended to have a higher sense of educational meaning. Perceived educational meaning was measured by the level to which students looked forward to going to school and whether they found it exciting and fun. The youth that saw school as more meaningful also were found to have increased levels of academic performance than those students who put less meaning on education. This research indicates that parental achievement orientation (attitudes and behaviors) can influence their children's school performance.

Aguilar's research (1996) of Mexican American women, who had overcome the odds of dropping out of school and were enrolled in college, looked into different factors that would have increased the student's chances of retention. His study found that one of the significant factors in these minority students' educational achievement was the parental attitudes and support. Most of the women in the study (71.4%) reported that both parents were supportive of their educational endeavors while most of the remaining students (23.9%) recounted having one parent being supportive. This study reiterates the correlation between the parental achievement attitudes and the school performance of the students.

Another aspect that reflects the parental achievement orientation is the level of education that the parents have attained. Parents who have put emphasis on their own achievement of education will most likely reflect their positive attitudes towards learning onto their children's education. Mullis, Rathge, and Mullis (2003) investigated the predictors of adolescents' school performance in the contexts of resource capital, social

capital, and behavior. The researchers concluded that the parent's level of education and income were two predictors of the academic performance among middle school adolescents. Parent's level of education was positively associated with parent's income level. These two factors (education level and income) led to a higher level of resources available to the youth for educational purposes, along with a heightened awareness of the importance of education.

Parent annual income, education level, and adolescent gender

Hortaçsu's findings (1994) support other research that parental level of education predicts students' academic performance. Hortaçsu (1994) analyzed the relationships between various factors among 376 students including grades from four academic courses of language, mathematics, science, and social science and the parental levels of education (ranging from illiteracy to graduate school). Analyses revealed that parental level of education was a significant predictor of the student's grade point average. In this sample, the higher the level of parental education, the higher the student's grade point average. This is supported by other research (Fischer & Kmec, 2004) that concludes that higher levels of maternal education also increased the probability of a child's success in school. Fischer and Kmec (2004) also found that a child's grade point average is the strongest individual-level predictor in the student's likelihood to complete high school and in turn success in and past school.

The affects of parental income on the child's academic achievement was explored by Huston et al. (2005) in a study of the effectiveness of a program implemented in Milwaukee, Wisconsin. In this study, families in poverty were given supplements to raise the family income level above the poverty line. Families were provided earning

supplements, child care assistance, and health care subsidies. The researchers found that the program increased the general levels of reading and literacy of the children whose families were provided assistance. Therefore, the increase in resources and family income were related to increased achievement in the child's reading and literacy comprehension.

Gender may be an important variable for understanding school performance. Most research controls for gender, and one reason may be because of differences in socialization between males and females which can lead to different outcomes. Clearfield and Nelson's research (2006) showed that through gender role socialization activities with mothers, girls were verbally more expressive than boys. Another discovery of Clearfield and Nelson was that mothers tended to spend more time interacting with girls than boys. This reinforces the notion that girls should ask for help while boys should explore independently to find meaning and answers.

Current Study

The literature clearly suggests a relationship between adolescents' school performance and the perceptions of family cohesion or achievement orientation. However, there is a gap in the literature regarding how these variables interact among at-risk youth. Most of the extant studies surveyed low risk, normative samples of adolescents and parents, yet there is a need for studies focused on students in at-risk situations. These students have many obstacles to overcome, but little research has examined the relationship between the perceptions of family cohesion, achievement orientation and the at-risk adolescent's school performance. There are also few studies focused on the interaction of cohesion and achievement orientation within the family and

how this interaction affects the youth's school performance and none among runaway youth and families, specifically. This study will examine the perceptions of cohesion and achievement orientation within the family and the resulting school performance of the at-risk adolescent.

It was hypothesized that higher perceived levels of family cohesion and achievement orientation - both separately and together - would predict higher grade point average (gpa) and lower levels of school problems among adolescents. Further, because research suggests that parents' education and income levels influence adolescent's school performance, this relationship was also explored. This study explored whether male's and female's perception of family cohesion and achievement orientation differentially predicted gpa and school problems. In considering the multiple ecological levels that influence student's school performance, the information from the findings of this study might be useful for directing future research focused on understanding or improving school performance among these at-risk runaway youth.

METHOD

Participants

Baseline data were analyzed from part of a larger longitudinal study of substance abusing runaway youth and their primary caretakers and treatment outcomes. A sample was recruited from two Southwestern runaway/homeless shelters. Eligibility for the study required the adolescent be between 12 and 17 years of age, meet DSM IV diagnostic criteria for substance abuse or dependence (CDISC; Shaffer, 1992), reside within a 60-mile radius of the research site, and have the legal option to return to a home

environment which includes a foster home or living with other relatives. Since the study focused on evaluating a family-based intervention at least one parent, or surrogate parent (primary caretaker) had to agree to participate in the study. Sample demographics are as followed:

Adolescent Demographics: The sample included 137 females (57%) and 105 males (43%), with a mean age of 14.99 years (SD=1.38) at first substance intake. The ethnic distribution of the sample included Hispanics (41%) and just over one third of the adolescents were White/Non Hispanic (34%) while 7% of the youth were Native American, 6% were of African American, and 12% were "Other" or mixed ethnicity. Adolescents reported an average age of first runaway episode at 13.5 years (SD=3.5).

Procedure

Potentially eligible youth were approached within twenty-four hours of their arrival to the shelter. Interested adolescents were screened for participation and those who passed the eligibility criteria were asked if their parent could be contacted for permission to participate. If the adolescent agreed, his or her parent or legal guardian was contacted via phone by a research assistant to arrange an appointment to meet. In this meeting, the research assistant and parent/guardian reviewed the study requirements, signed the consent statement, and arranged a time to return to complete their evaluation. Once parental signed consent was acquired, the adolescent's signed consent was obtained and their assessment was initiated. All youth were then administered the Computerized Diagnostic Interview Schedule for Children (CDISC; Shaffer, 1992) by the research assistant. This diagnostic instrument includes sections on alcohol, marijuana and other substance use, and established formal eligibility. Those adolescents who were not found

to be eligible continued with the shelter program whereas those who met the diagnostic criteria for substance abuse or dependence continued with the assessment. The adolescent assessment required three hours and the adolescent was given $25 upon its completion. All procedures in the study were approved by the Institutional Review Board at The University of New Mexico.

Materials

Three fields of interest were assessed: adolescent's perceptions of family cohesion, adolescent perceptions of family achievement orientation and youth school performance through measures of gpa and school problems. Assessment of the youth included clinician assisted and self-report questionnaires. Adolescents having difficulty finishing the questionnaires were offered aid from the research assistant, and were given the option of completing the assessment in one period or in two shorter sittings on separate days.

Demographic measures: A demographic survey was administered to characterize and compare participants. Measures on the questionnaire included gender, age, self-identified ethnicity, self-reported physical and sexual abuse, information about parents and siblings, number of runaway episodes, economic information, grade point average, arrest history, education level and suicidality.

Family measures: The Family Environment Scale (FES; Moos & Moos, 1986) is comprised of 90 true-false questions and consists of 10 subscales that measure social-environmental characteristics of families (cohesion, achievement orientation, expressivity, independence, conflict, organization, control, and cultural-religious emphasis). Internal consistencies have ranged from .61 to .78 and the test-retest

reliabilities from .73 to .86. Cohesion and achievement orientation subscales were used to assess the adolescent's perceptions of these areas in terms of the family functioning in predicting the youth's school performance. The cohesion subscale was made of nine items (M=5.37, SD=2.46) and the reliability coefficient for this sample was .730. The achievement orientation subscale of nine items (M=5.72, SD=1.70) was found to have a reliability coefficient of .40.

School Problem Behaviors: The Youth Self Report (YSR) is assessment for the youth perceptions and is parallel to the adult reporting instrument of the Child Behavior Checklist (CBCL; Achenbach & Edelbrock, 1982). The YSR is made up of 120 items and is a self-report questionnaire used to provide factor scores for internalizing, externalizing as well as total behavior problems. The measure is highly reliable and effectively discriminates between children referred to clinics for behavior issues and those not referred to clinics. A subscale to determine involvement in school problem behaviors was identified from the YSR. The subscale consisted of three items (M=2.21, SD=1.85) and had a reliability coefficient of .68 for this sample.

Statistical Analysis

The analysis began with identifying sample characteristics. Each variable was examined to verify that assumption of univariate normality of the sampling distribution was supported. Initial analysis revealed that the skewness and kurtosis of all variables of the proposed model were within acceptable interval of ± 1.96. That is, variables were normally distributed and did not violate the assumption of normality.

Intercorrelations between all variables (gpa, school problems, achievement orientation, and family cohesion) were tested to reveal the directions of relationships.

Then, multiple linear regressions were conducted to discover strength of the relationships between cohesion, achievement orientation, and the school performance measures. This analysis was used because the multiple linear regression analysis not only outlines the unique contribution of each independent variable in the explained variance of the outcome variable, but also tests how well the full model with all independent variables predicts the outcome in relation to each other.

In this study, the independent variables were adolescent perceptions of cohesion and achievement orientation in the family and the dependent variables were gpa and school problems as indicators of school performance. The statistical analysis aimed to test how well family cohesion and achievement orientation predicted school performance, after controlling for the influence of primary caregiver level of education, annual income level, and gender of the adolescent. The interaction of cohesion and achievement orientation upon school problems and gpa was also examined in the final model.

RESULTS

Sample Characteristics

Of the 242 youth, approximately half of the sample, 50.8% (n=123), were currently enrolled in school at the time of the study (Table 1). The mean grade point average was 2.37 (SD=.97), and the average annual family income was $26,536 (SD=$29,644). Nearly one third of the primary caretakers' highest education level (Table 1) was a high school diploma (30.2%), and just over a quarter of the primary caretakers had not received a high school diploma or equivalent (27.7%). Only 18.9% of primary

caretakers had a college Bachelor's degree or higher (Master's and Ph.D). The remaining percentage is made up of those who had received GED's, Trade or Associate's degrees.

Intercorrelations

Correlational analyses were conducted to examine the relationship between adolescent's perception of family cohesion, achievement orientation and the adolescent's school performance measures (Table 2). Results revealed that correlations varied from low to moderate in magnitude. There was a significant negative correlation between gpa and school problems (r=-.382) which shows that as gpa increased, school problems decreased. Also, a negative correlation between cohesion and school problems (r=-.139) was found, so as the perceived family cohesion increased, school problems among the adolescents decreased. Finally, family cohesion was positively correlated with family achievement orientation (r=.207). Thus, as cohesion in the family increased so did achievement orientation. Initial analysis suggested that all intercorrelations were in the expected directions.

Regression Models

The analysis using regression models showed that family cohesion (p=.009) and family achievement orientation (p=.033) were significant predictors of school problems (Table 3). As predicted, both family cohesion and achievement orientation independently had negative relationships to the level of school problems. That is, higher levels of family cohesion and achievement orientation were separately associated with fewer problems at school. The model for school problems had an R squared of .040 meaning that the full model explained 4.0% of the data's variance in school problems. However,

none of the variables in the model predicted adolescent's grade point average. The interaction between cohesiveness and achievement orientation was also significant in the final model (p=.035). As shown in Table 3, the interaction of family cohesion and achievement orientation together had a significant positive relationship indicating that higher levels of both predicted more school problems for students.

In the exploratory analysis of annual family income and primary caretaker degree (Table 4), these variables were added to the primary analysis regression; however, these variables did not predict school problems or gpa. Although primary caretaker's level of education showed a trend toward predicting higher gpa, the effect was not significant (p=.059). In this secondary analysis, gender was found to be a significant predictor of school problems (p=.003), but not gpa.

Since gender had a significant effect in the exploratory model predicting school problems, a separate regression analysis was conducted to further explore gender differences (Table 5). This model was tested to discover any relationships between gender of the adolescent and predictors of school problems, specifically family cohesion and achievement orientation. This model excluded annual family income and primary caretakers' degrees since they were not significant in predicting either of the school performance measures. In this model, cohesion significantly predicted school problems among females (p=.046) while achievement orientation significantly predicted school problems among males (p=.016). However, the interaction of cohesion and achievement orientation was not significant for either males or females. The final model explained 7.4% and 5.5% of the variance in school problems for males and females respectively.

DISCUSSION

The goal of this study was to examine the family characteristics of cohesion and achievement orientation in relation to grade point average (gpa) and school problems for substance abusing runaway adolescents. Based upon prior literature, it was expected that an increase in the adolescent's perceptions of family cohesion and achievement orientation would predict higher grade point average but lower school problems. An exploratory analysis examined whether parent's annual income and education level, predicted adolescent's gpa and school problems. Further, potential associations between gender of the adolescents and his or her perceptions of family cohesion and achievement orientation as predictors of gpa and school problems were explored.

Primary Hypothesis

The primary hypothesis was whether perceptions of higher family cohesion and achievement orientation predicted lower school problems and higher gpa among substance abusing runaway adolescents. Significant negative relationships were found between family cohesion and school problems and achievement orientation and school problems. In other words, lower family cohesion and achievement orientation predicted higher school problems. However, neither cohesion nor achievement orientation predicted gpa. Also, the interaction of family cohesion and achievement orientation predicted school problems, but in the opposite direction than was hypothesized. As the interaction indicated higher levels of both variables, the associated levels of school problems increased.

Few studies have examined the relationship between achievement orientation and school problems among adolescents. The results of the current study suggest that higher perceptions of family achievement orientation are related to lower levels of school problems among the youth. One interpretation of this particular finding is that adolescents might internalize their family's attitudes toward achievement, including the importance of education, which likely influences how they behave in the classroom. Similarly, King and colleagues (2005) found that as family functioning, such as communication and responsiveness increased, the child's adjustment, as measured by attention and emotional and behavioral regulation, also increased, similar to the current study's findings.

This study did not find that family cohesion or achievement orientation predicted gpa. The predictors used in this study focused on the family environment rather than individual characteristics which have been shown to predict gpa. A study by Rohde and Thompson (2007) found that general cognitive abilities were significantly correlated with gpa and SAT test scores, with nearly 50% of the variance explained by general cognitive abilities. While individual characteristics like cognitive skills contribute to school performance, family characteristics appear to as well, and further study in this area is warranted.

As noted above, the interaction of family cohesion and achievement orientation was found to significantly predict school problems in the positive direction, but not gpa. As levels of cohesion and achievement orientation rose, so did school problems. It is perplexing that when examined separately, cohesion and achievement orientation were associated with a decrease in school problems, but were associated with an increase in

school problems when they were both present at higher levels within the family. Much research shows that high family cohesion is associated with lower problem behaviors among adolescents. Therefore, the finding that family cohesion combined with achievement orientation is related to more problems needs further examination. Prior research suggests that for some families, extremely high levels of achievement orientation may have a negative impact on youths' school performance because of increased stress levels. According to DuongTran, Lee, and Khoi's study (1996), some Southeastern Asian families express such high expectations for children to perform well in school that great pressure is placed on the child to excel. This extreme orientation to school achievement in the family was associated with high levels of stress in the adolescent with four out of the five most stressful life events reported by the adolescents related to the field of academics (DuangTran et al., 1996).

Exploratory Analysis

This study also explored whether parent's annual income and education level, as well as the adolescent's gender predicted gpa and school problems. Parental annual income and educational level were not significant predictors of either gpa or school problems. Meanwhile, gender was significant in predicting school problems, but not gpa. In further examination, among females, family cohesion was a significant predictor of school problems while for males achievement orientation was a significant predictor of school problems.

While this study found that parent's annual income and education levels did not predict either gpa or school problems much research has shown a relationship. Hortaçsu (1994) and Fischer and Kmec (2004) showed a relationship between parent's levels of

education and the achievement of their children in school. Huston and colleagues' study (2005) found a relationship between the parent's income level and the educational attainment among adolescents through the implementation of a program to raise income levels of the family. In turn, this increase in income was found to increase children's literacy and reading competencies.

The lack of a significant relationship between the parent's annual income and education level within this study may be due to the sample distribution. Approximately 68.6% of the primary caretakers reported receiving a high school diploma or equivalent or had not finished any formal schooling (Table 1). Therefore, only 31.4% of the sample of primary caretakers reported post-secondary education. Those who had attained the highest education levels (Masters or professional degrees and doctorates) only comprised 5.7% of the sample. Because of this skewed center of distribution, it is difficult to accurately measure the relationship of parents' education level to the adolescents' school problems and gpa. Similarly, 56.1% of primary caretakers reported annual income levels below $22,000 per year. According to the 2008 poverty guidelines by the U.S. Department of Health & Human Services, an annual income of $21,400 for families of four in the 48 contiguous states and D.C. put the family at the poverty threshold. This means that according to the 2008 guidelines, over 50% of the sample fell below the poverty line.

In the exploratory analysis, gender significantly predicted school problems, but not gpa. Specifically, family cohesion was a significant predictor of school problems among females whereas achievement orientation was significant in predicting school problems among males. These findings may be associated to differences in socialization

between males and females as found by Clearfield and Nelson's research (2006). According to Clearfield and Nelson (2006) mothers' engaged in different levels of verbal expression when interacting with daughters versus sons, suggesting gender role socialization. Further research is needed to explore associations between gender role socialization and the resulting behavioral outcomes such as school problems.

Limitations and Conclusions

While this current study showed some interesting findings, some limitations of the study should be considered. The sample included substance abusing runaway adolescents; therefore, these findings cannot be generalized to all adolescents. It may be beneficial in future research to explore whether the findings of the current study are similar among other at-risk populations such as low income families. Also, the variance accounted for was low (4.0%, Table 3) so other variables not assessed also impact adolescents' school problems. The study also only looked at two family environment characteristics. Other factors such as individual characteristics, and societal expectations were not examined and so it is unknown how these variables impact the outcome variables assessed in this study.

Even with these limitations, several implications from the findings can be offered. Family characteristics significantly predicted school problems among substance abusing runaway adolescents. Also, gender appears to influence the relationship between family environmental characteristics and school problems. Perhaps, family-based interventions can be a valuable resource to these adolescents and their families, and deserve future research attention.

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Table 1
Descriptive Statistics (N=242)

Gender	
Male N(%)	105(43)
Female N(%)	137(57)
Ethnicity	
Hispanic N(%)	92(41)
Anglo N(%)	81(34)
Native American N(%)	18(7)
African American N(%)	15(6)
Other N(%)	25(12)
Primary caretakers' attained degrees	
None N(%)	67(27.7)
GED N(%)	26(10.7)
HS Diploma N(%)	73(30.2)
Trade N(%)	12(5.0)
Associate N(%)	18(7.4)
BA/BS N(%)	32(13.2)
MA/MS N(%)	11(4.5)
Ph.D. N(%)	3(1.2)
Other Characteristics	
Experienced sexual or physical abuse N(%)	154(64)
Currently Enrolled in school N(%)	123(50.8)
Annual family income (M)	$26,536
Age at time of first intake M(SD)	14.99(1.38)
Age at first runaway incident in years M(SD)	13.5(3.5)
Grade point average M(SD)	2.37(.97)

Table 2
Correlations

	1. Grade point average	2. School problems	3. Cohesion	4. Achievement Orientation
1. Grade point average	1	-.382**	-.037	-.007
2. School Problems		1	-.139*	-.069
3. Cohesion			1	.207**
4. Achievement Orientation				1

**. Correlation is significant at the 0.01 level
*. Correlation is significant at the 0.05 level

Table 3: Predictors of School Performance											
	Grade Point Average						School Problems				
	B	**SE**	**β**	**t**	**Sig.**		**B**	**SE**	**β**	**t**	**Sig.**
Constant	2.44	.487		5.03	.00		4.92	.72		6.81	.000
Cohesion	-.08	.11	-.20	-.74	.459		-.40	.15	-.53	-2.65	.009**
Achievement Orientation	-.01	.09	-.02	-.10	.919		-.29	.14	-.27	-2.14	.033*
Cohesion X Achievement Orientation	.01	.02	.20	.61	.544		.06	.03	.52	2.12	.035*
Model Significance					.738						.025
Overall F					.421						3.177*
R					.084						.199
R Square					.007						.040
Adjusted R Square					-.010						.027

*. $p<0.05$
**. $p<0.01$
***. $p<0.001$

Table 4: Exploratory Predictors of School Performance											
	Grade Point Average						School Problems				
	B	**SE**	**β**	**t**	**Sig.**		**B**	**SE**	**β**	**t**	**Sig.**
Constant	2.53	.52		4.83	.000		6.01	.89		6.76	.000
Annual Family Income	.00	.00	.08	1.06	.289		.00	.00	.10	1.53	.127
Primary Caretaker Degree	.07	.04	.14	1.90	.059		-.04	.07	-.04	-.57	.567
Gender	.11	.14	.06	.80	.423		-.73	.24	-.20	-3.02**	.003
Cohesion	-.12	.10	-.30	-1.28	.202		-.36	.16	-.48	-2.29*	.023
Achievement Orientation	-.10	.08	-.18	-1.18	.241		-.29	.14	-.27	-2.03*	.044
Cohesion X Achievement Orientation	.02	.02	.35	1.21	.228		.05	.03	.45	1.75	.082
Model Significance					.191						.006
Overall F					1.470						3.124**
R					.213						.278
R Square					.045						.078
Adjusted R Square					.014						.053

*. $p<0.05$
**. $p<0.01$
***. $p<0.001$

Table 5: Exploratory Predictors of School Performance by Gender											
	Male						Female				
	B	**SE**	**β**	**t**	**Sig.**		**B**	**SE**	**β**	**t**	**Sig.**
Constant	6.12	1.06		5.77	.000		4.28	.96		4.44	.000
Cohesion	-.41	.22	-.60	-1.87	.065		-.41	.20	-.51	-2.02	.046*
Achievement Orientation	-.46	.19	-.49	-2.45	.016*		-.18	.19	-.16	-.96	.337
Cohesion X Achievement Orientation	.06	.04	.67	1.71	.090		.05	.04	.39	1.27	.206
Model Significance					.050						.067
Overall F					2.694						2.441
R					.272						.235
R Square					.074						.055
Adjusted R Square					.047						.033

*. p<0.05
**. p<0.01
***. p<0.001